

Remarks

Applicant confirms the election, without traverse, of invention of Group I. The Claims of Group II, Claims 11-14, are retained in the application pending the filing of a divisional application.

Claims 1-10 have been amended to obviate the 35 U.S.C. § 112 rejection. Each now calls for the circular cylindrical cross-section wall segment to be formed of deformable material and to be deformed radially outwardly so that an interference fit is established in the assembly. The amendments which implement this change do not narrow the scope of the claims in any way, vis-à-vis the prior art cited.

Regarding the prior art, specifically the Baltzell et al. patent, it does not anticipate, teach or suggest applicant's invention as claimed, either originally or after amendment. In fact, Baltzell et al. actually teaches away from applicant's invention, in the manner hereinafter discussed.

The Examiner's reliance upon Baltzell et al. is based upon language at Column 2, lines 43-46, of the specification. There the specification states:

The marginal portion 36 of the cap encircles the enlargement 28 of the nut with the cylindrical portion 40 thereof contacting the radially outer surface of the enlargement 28 throughout a full 360°.

Applicant submits that the foregoing sentence does not describe an interference fit to one skilled in the art of designing and manufacturing capped wheel nut assemblies. A ring which encircles and contacts a cylindrical surface is neither explicitly nor inherently in interfering relationship with that surface. It may slide freely on that surface and, in fact, be designed to do so. To find that a disclosure inherently teaches some

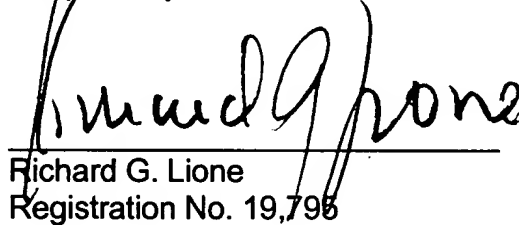
structure or function, the law is clear that the disclosure must permit of no alternative to the inherency required. That is simply not the case with Baltzell et al.

Baltzell et al. actually teaches away from the claimed invention. It inherently teaches that an interference fit is not present. Otherwise there would be no use for an adhesive 501 to fasten the cup 12 to the nut body 14.

New Claims 15-22 have been added. Claims 15-20 are couched in terms similar to Claims 1-10 but vary slightly in scope and focus. Claims 21 and 22 are directed to a functionally related combination of cap and insert body.

Claims 1-10 and 15-22 should be in allowable form. Passage of the application to issue is respectfully requested.

Respectfully submitted,

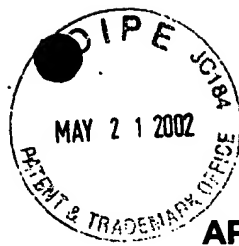


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APPENDIX A

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GROUP 3600

Version with markings to show changes made

Claims

1. (Amended) A decorative cap and wheel fastener assembly for a vehicle wheel, comprising:

a) a fastener insert body having threads formed thereon encircling the axis of said body;

b) said body including one section having an external surface with a polygonal cross-section encircling said axis;

c) said body including [a] another section having an external surface with a circular cylindrical cross-section encircling said axis; and

d) a cap including [a] one wall segment having an internal surface with a polygonal cross-section;

[e] the cross-sectional dimensions of said internal polygonal surface in said cap being at least as large as the cross-sectional dimensions of said external polygonal surface on said body;]

[f] e) said cap further including [one] another wall segment having an internal surface with a circular cylindrical cross-section, said wall segment being formed of radially deformable sheet material;

[g] the cross-sectional dimensions of said internal cylindrical surface in said cap being less than the cross-sectional dimensions of said cylindrical surface on said body;]

[h] said insert body being press fit into said cap whereby an interference fit is established between said one external and internal circular cylindrical surfaces.]

f) said insert body and said cap being assembled by being press fit together, the external dimensions of said circular cylindrical cross-section surface on said body being greater than the internal dimensions of said circular cylindrical cross-

section surface in said cap prior to assembly whereby said other wall segment is deformed radially outwardly to form an interference fit between said other wall segment and said other body section when said insert body and said cap are assembled.

3. (Amended) The cap and fastener assembly of Claim 1 further characterized in that:

a) the diameter of said internal cylindrical surface in said cap is 0.010 to 0.030 less than the diameter of said external cylindrical surface on said insert prior to assembly of said cap and wheel fastener and said cap is formed of elastically deformable sheet material.

5. (Amended) The cap and fastener assembly of Claim 1 further characterized in that:

a) said deformation establishing an interference fit is between 0.002 and 0.006 inches around the said external and internal circular cylindrical surfaces.

6. (Amended) The cap and fastener assembly of Claim 1 further characterized in that:

a) said internal polygonal surface [in said cap slips easily] is seated over said external polygonal surface on said insert in a non-interference fit relationship .

Cancel Claims 11-14 without prejudice.

[11. (Canceled) A method of assembling a decorative cap and wheel nut or bolt insert comprising the steps of:

- a) forming an insert with a section having a polygonal external cross-section axially displaced from a section having circular cylindrical external cross-section;
- b) applying a plating and/or a coating to the insert so at least the exterior of said section having an external circular cylindrical section is plated and/or coated;
- c) forming a decorative cap of sheet material with a segment leaving a polygonal cross-section and a segment having a circular cylindrical cross-section axially displaced from each other, the polygonal cross-section segment having internal dimensions greater than the corresponding external dimensions of said polygonal section on said insert and the circular cylindrical cross-section segment having internal dimensions less than the corresponding external dimensions of said circular cylindrical section on said insert; and
- d) press fitting said insert into said cap so as to form an interference fit between the plated and/or coated circular cylindrical surfaces of said insert and the circular cylindrical surface of said cap.]

[12. (Canceled) The method of Claim 11 further characterized in that:

- a) said insert is coated with a chromium free coating material.]

[13. (Canceled) The method of Claim 11 further characterized in that:

- a) an interference fit of between 0.002 and 0.006 inches is formed between said circular cylindrical surfaces.]

[14. (Canceled) The method of Claim 13 further characterized by and including the step of:

- a) crimping an edge of said cap under a mating undercut on said insert body.]

Please add the following claims 15-22.

15. (New) The assembly of a decorative cap and wheel fastener insert for a vehicle wheel, comprising:

a) a fastener insert body having threads formed thereon encircling the axis of said body;

b) said body including one section having an external surface with a polygonal cross-section encircling said axis;

c) said body further including another section having an external surface with a circular cylindrical cross-section encircling said axis; and

d) a cap including one wall segment having an internal surface with a polygonal cross-section;

e) said cap further including another wall segment having an internal surface with a circular cylindrical cross-section; and

f) said cap being formed of elastically deformable sheet material and the cross-sectional dimensions of said internal cylindrical surface in said cap being less than the cross-sectional dimensions of said cylindrical surface on said body whereby when the wheel fastener insert and the cap are assembled said one wall segment is deformed radially outwardly of said axis for a distance of at least 0.002 inches.

16. (New) The cap and fastener assembly of Claim 15 further characterized in that:

a) said external surfaces are coated with another material to a thickness of approximately 0.001 inches.

17. (New) The cap and fastener assembly of Claim 16 further characterized in that:

a) said coating material is chromium free.

18. (New) The cap and fastener assembly of Claim 15, 16 or 17 further characterized in that:

a) said radial deformation is between 0.002 and 0.006 inches around the said external and internal circular cylindrical cross-section surfaces.

19. (New) The cap and fastener assembly of Claims 1, 15, 16 or 17 further characterized in that:

a) said external and internal circular cylindrical cross-section surfaces are free of adhesive material.

20. (New) The decorative cap and wheel fastener assembly of Claims 1, 7 or 15 further characterized in that:

a) said cap is formed of stainless steel sheet which is plastically and elastically deformable;

b) both plastic and elastic deformation of said wall segment outwardly of said axis takes place when said insert body and cap are assembled.

21. (New) A decorative cap and wheel fastener combination for a vehicle wheel, comprising:

a) a fastener insert body having threads formed thereon encircling the axis of said body;

b) said body including one section having an external surface with a polygonal cross-section encircling said axis;

c) said body further including a section having an external surface with a circular cylindrical cross-section encircling said axis; and

d) a cap including a wall segment having an internal surface with a polygonal cross-section;

e) the cross-sectional dimensions of said internal polygonal surface in said cap being at least as large as the cross-sectional dimensions of said external polygonal surface on said body;

f) said cap further including one wall segment having an internal surface with a circular cylindrical cross-section;

g) the cross-sectional dimensions of said internal cylindrical surface in said cap being less than the cross-sectional dimensions of said cylindrical surface of said body;

h) said insert body adapted to be press fit into said cap whereby an interference fit will be established between said one external and internal circular cylindrical surfaces.

22. (New) The cap and fastener assembly of Claim 21 further characterized in that:

a) said cap is formed of elastically deformable sheet material.

b) the diameter of said internal cylindrical surface in said cap is 0.010 to 0.030 less than the diameter of said external cylindrical surface on said insert.